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Integration into the European Monetary Union: Lithuanian perspective for the year 2015

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Abstract

This paper presents the problems and prospects of identification and assessment for achieving the final Lithuania's success of the integration into European Monetary Union since 1st of January, 2015. So the main aim of this paper is to assess the possibilities of Lithuania fully integrate by predicting the inflation rate changes since 2014 in 6 month period. Methods of scientific literature analysis, information grouping, comparison, and generalization and detail techniques were used. One of the most effective measure, that helped Slovenia to control the inflation and finally adopt the euro, was the macro-economic model SLOPOL6. It is a tool for forecasting macroeconomic developments over the short and medium run and for evaluating alternative policies aiming at influencing the business cycle, at stabilizing inflation. According to an econometric model, the most important variables that can affect the inflation rate is the average monthly gross salary, level of production capacity and national currency exchange rate, expressed in the largest export partner country's currency. The research results show that there is high probability that convergence criteria for inflation will be fulfilled, but there is a risk that inflation may be uncontrolled. Assuming that in period of January and June, 2014 the average gross wage and labour levels of production capability will grow at the same pace as in period of January and June, 2013 since January- April, 2014 the inflation level would increase to 1.8 percent. To high growth of inflation is possible in this case, if during 3 months the average gross wage and level of production capabilities increase by 3 percent each, respectively, the average gross wage from 2305.3 LTL up to 2386 LTL, the level of production capabilities from 73,5 up to 76.-7 percent. In this case, Lithuania would not comply with the convergence criteria.

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1. Introduction

Monetary system development, which lasted nearly fifty years, has been a long and complicated process, which was influenced by the various economical and political problems, therefore the integration of European countries into European Monetary Union is widely examined by Feldstein (1998), Winkler (1999), Frankel, Rose (2002), Weyerstrass, Neck (2007), Chintrakarn (2008), Jakutis (2008), Hodson (2010), Grauwe (2012), Davulis (2012), Sinn, Wollmershauser (2012). Thus the object of the article is the variation of inflation as the riskiest convergence criteria of Lithuania's integration process into the European Monetary Union. And the basic purpose is to assess the possibilities of Lithuania fully integrate into the European Monetary Union since 1st of January, 2014 by predicting the inflation rate changes since 2014 in 6 month period. To achieve this purpose the major tasks are to identify the one most important risk factor for Lithuania's process of integration into the European Monetary Union, causes and means to eliminate it, to assess positive and negative macroeconomic aspects of accession to the European Monetary Union and in the event to analyze changes of the inflation rate in 2001- 2013 and predict its changes in period of January and June, 2014.

In pursuance that monetary union would function as a coordinated mechanism, involving the common market and equal standards of living throughout the Community countries, it was necessary to create common market fundamentals. One of the most challenging tasks was to establish objective criteria, which would become a point of reference not only to the first European Monetary Union members, but also to the countries seeking to join the union in the future (Feldstein, 1998). It was necessary to establish such criteria, that the countries of different economic levels would meet the criteria in all economic cycles and thus to contribute to the primary goal of development of the monetary union- to maintain price stability in the long-time perspective, without resorting short-term manipulations of economic stimulation (Grauwe, 2012). In determining the criteria, the importance of inflation, occurring in price growth, was especially emphasized, because only the economic environment of stable prices can help promote sustainable economic growth, high levels of employment and a better life. The literature identifies the key aspects of why it is important to maintain price stability (European Central Bank, 2013). When prices are constant it is much easier to make investment decisions for companies, as it becomes possible to determine the relative change in prices more accurately and increase price transparency, which allows a more efficient allocation of resources in the market. Stable prices reduce the level of real interest rate, increase investment intentions and help to avoid extra costs (Chintrakarn, 2008). That is why, when assessing country's possibilities for integration into the European Monetary Union, inflation can not be more than 1.5 percentage points above the average of inflation in three member states of EU, in which the prices are most stable (Weyerstrass, Neck (2007). Such price stability must be long-term.

It is not easy to identify the cause of inflation, because it reflects the condition of all economy, although it occurs in the sphere of money, so economists often distinguish the different causes of inflation phenomenon (Jakutis, 2008). Excessively increasing amount of money in circulation, which exceed GDP growth, excessively rapid income growth of economic entities, which exceed labour productivity, excessive public expenditure and production costs are the main causes of inflation (European Union Commission, 2013). Inflation can be reduced in various ways. It depends not only from duration of the inflationary processes, intensity, but also from other political and economical conditions of the country. For elimination of causes of inflation certain economic politics are usually used in order to reduce inflation and other problems. Winkler (1999) distinguishes such measures for reducing inflation:

- Indexation of income, when income is increased proportionally to inflation rate;
- Control of inflation, when wage and price level is strictly controlled.
- A balanced budget;
- Low public debt;
- Reducing taxation of labour income.

Inflation control would enable Lithuania's accession to the common monetary union, which would give the country some benefits. First of all, it could be possible to borrow by paying lower interest rates, when prices are very stable (European Central Bank, 2013). Opportunity to borrow at a lower cost for residents, companies and the state would enable more consumption and investment, since, in spite of the financial crisis, euro zone has managed to maintain a low and stable inflation expectations and inflation risk premia (European Union Commission, 2013). At an average, since 2002, when euro began to circulate in the form of the cash, until 2012 the inflation rate in the euro area stood at 2.14 percent. Latvian debts of securities denominated in euro since 2012 are smaller than Lithuanian's,

though economic indicators of both countries are similar. In 2011 Lithuanian interest of Eurobonds was lower than in Latvia, but in January, 2014 it became higher by 0.76 percents of point. In 2018 interests of redeemed Lithuanian Eurobonds in January was 2.08 percent and respective Latvian debts of securities- 1.32 percent (Lithuanian Central Bank, 2014).

Adopting the euro will enable the elimination of transaction costs, which would reduce expenditure and provide greater stability to sales (European Central Bank, 2013). In Estonia after 100 days of adoption more than two-thirds of German companies have felt the positive impact on their company and only 6 percents of respondents felt affected negatively (Chamber of Commerce in Germany and Baltic countries of Estonia, Latvia, Lithuania, 2011). As the biggest advantage of the new currency for the companies is the reduction of transaction cost, disappearance of currency exchange risk. Sales volumes during the first year of participation in the euro zone grow approximately by 9-14 percent (Chintrakarn, 2008). 1 percent increase in trade leads to 0.33 percent of GDP growth and trade flows between countries, which belong to the common monetary union, are averagely 100 percent higher than in EU countries that do not belong to the common monetary union (Frankel, Rose, 2002). In 2011 after the adoption of the euro in Estonia GDP grew averagely by 12.5 percent during the quarter. The number of unemployed people in Estonia decreased by 1.2 times. The average salary increased averagely by 5.2 percent and profit of companies- 1.4 times. In 2010 the average annual wage was 788, 4 euro, in 2011 it increased to 830.9 euro, in 2012 it reached 867.3 euro. In the form of percentage wage respectively grew by 5.4 percent and 4.4 percent per year.

However, the integration into common money market would oblige the country to pay into EFSM fund in order to rescue euro zone countries having financial problems. Euro adoption would restrict freedoms of national central bank, which could lead to a negative perception of the residents in respect of using common currency. Central Bank of Cyprus, unlike U.S. and UK central banks, cannot initiate a quantitative incentive program and to purchase part of government bonds (Sinn, Wollmershauser, 2012). Cyprus is obliged to comply with the very strict fiscal policy and budget deficit ratio. Despite strict saving, Cyprus debt exceeds 140 percent of GDP (Hodson, 2010). It is also possible rise in prices. German Central Bank's analysis showed that rounding of prices by changing Marks into euro to some degree increased the price level (Davulis, 2012). In Estonia during 2010-2011 the inflation rate increased by 88.89 percent, respectively from 2.7 percent to 5.1 percent. The biggest rise in price was for clothing and footwear- 7.7 percent, accommodation services- 7.3 percent, alcohol and tobacco – 5 percent, food products- 3 percent. Less expensive became transport services- 1.1 percent. Despite the different experiences of the euro zone countries before and after adopting the euro, positive and negative effects on the national economy, the European integration process is one of the most significant in political and economical sense throughout the history of Europe.

2. Method

Analysis of Lithuanian and foreign scientific works, empirical studies and economic literature was done. Methods of scientific literature analysis, information grouping, comparison, and generalization and detail techniques were used. One of the most effective measure, that helped Slovenia to control the inflation and finally adopt the euro, was the macro-economic / macro-econometric model SLOPOL6 (SLOvenian economic POLicy model, version no. 6). SLOPOL6 is a medium-sized macro-econometric model of the small open economy of Slovenia. It is a tool for forecasting macroeconomic developments over the short and medium run and for evaluating alternative policies aiming at influencing the business cycle, at stabilizing inflation and unemployment and at enhancing growth and employment in country. These models were used for various purposes of forecasting and especially evaluating alternative policies, where simulation and optimization experiments were conducted to arrive at politically relevant insights and policy recommendations. The former determine the short and medium run solutions in the sense that the model is demand driven and persistent disequilibria in the goods and labor markets are possible. The model combines Keynesian and neoclassical elements. The supply side incorporates neoclassical features. Almost all behavioral equations are specified in error correction form, except for the equations determining the exchange rate, the interest rates, and changes in inventories. A macroeconomic model is such a tool, especially if it is an econometric model based on sound theoretical foundations and estimated with real data of the economy under consideration. According to an econometric model, the most important variables that can affect the inflation rate is the average monthly gross salary, level of production capacity and national currency exchange rate, expressed in the

largest export partner country's currency. To build such a model, it is of crucial importance to have available a data base with sufficiently long time series to provide reliable estimates.

3. Results

Under the first scenario, assuming that in period of January and June, 2014 the average gross wage and labour levels of production capability will grow at the same pace as in period of January and June, 2013 since January-April, 2014 the inflation level would increase to 1.8 percent. In this case, the inflation level would 1.8 percent meet the convergence criteria in April, which enables to join the euro zone.

Under the second scenario, Lithuania would not meet the inflation convergence criteria if the inflation level exceeds 1.8 percent in April. To high growth of inflation is possible in this case, if during 3 months the average gross wage and level of production capabilities increase by 3 percent each, respectively, the average gross wage from 2305.3 LTL up to 2386 LTL, the level of production capabilities from 73,5 up to 76.-7 percent. In this case, Lithuania would not comply with the convergence criteria and the situation would be similar to the first attempt of Lithuania to join the European Monetary Union prior to 8 years

4. Discussion/Conclusions

In the 1st of May, 2004, when Lithuania became an official member of the European Union, automatically goal was set to abandon the national currency and become a full member of the euro zone, when Lithuania meet the convergence criteria. The first attempt to join the euro zone has been since 1st of January, 2007, but Lithuania met only three if the four convergence criteria. When inflation exceeded the convergence criteria by 0.1 percent, the European Commission's report on Lithuania's accession to the euro zone was negative. During 2005-2012 inflation level exceeded the Maastricht criteria, except for 2013. This makes it possible to state that the main risk of Lithuanian integration process into the European Monetary Union is too high level of inflation. Unsuccessful attempts to join the euro zone shows that Lithuania's integration into the European Monetary Union is not properly analyzed topic in Lithuania, therefore for achieving the final success of the integration into European Monetary Union since 1st of January, 2015 the identification and assessment of integration problems and prospects extremely important. One of the major problems is inflation. After negative findings inflation in the country has continued to increase. In 2008 inflation rate was the highest in the country, i.e. 11.1 percent. Throughout the analysis period, Lithuania would not have been able to adopt the euro. Since 2014, the inflation rate in the country can begin to grow rapidly. Failure of the euro since 2015, will delay the integration of Lithuania for several years to come. Such a scenario is possible if the during 3 months the average gross wage and level of production capabilities increase by 3 percent each, respectively, the average gross wage from 2305.3 LTL up to 2386 LTL, the level of production capabilities from 73,5 up to 76.-7 percent.

References

- Chamber of Commerce in Germany and Baltic Countries of Estonia, Latvia, Lithuania (2011). *The euro in Estonia – balance after 100 days*. European Union: Chamber of Commerce in Germany and Baltic countries of Estonia, Latvia, Lithuania.
- Chintrakarn, P. (2008). Estimating the Euro Effects on Trade with Propensity Score Matching. *Review of International Economics*, 186-198.
- Davulis, G. (2012). The European Monetary Union: Establishment, Advantages and Problems. *Societal Innovations for Global Growth*, 1, 479-496.
- European Central Bank (2013). *Monetary and Fiscal Policy Integrations in a Monetary Unnion*. European Union: European Central Bank.
- European Union Commission (2013). *Convergence Report 2013 on Latvia*. European Union: European Union Commission.
- Feldstein, M. (1998). The Political Economy of the European Economic and Monetary Union. *Journal of Economic Perspectives* 4, 23-42.

- Frankel, J., Rose, A. (2002). An Estimate of the Effect of Common Currencies on Trade and Income. *Quarterly Journal of Economics*, 437-466.
- Grauwe, P. D. (2012). *Economics of Monetary Union*. Oxford university press.
- Hodson, D. (2010). The EU Economy: The Euro Area in 2009. *Journal of Common Market Studies*, 225-242.
- Jakutis, A. (2008). *Theory of Economic Concepts*. Vilnius: Technique.
- Lithuanian Central Bank, (2014). *The Introduction of the Euro in Lithuania for the year 2015*. Vilnius: Lithuanian Central Bank.
- Sinn, W., Wollmershauser, T. (2012). Target loans, current account balances and capital flows: the ECB's rescue facility. *International Tax and Public Finance*, 468-508.
- Weyerstrass, K., Neck, R. (2007). SLOPOL6: A Macroeconometric Model For Slovenia. *International Business & Economics Research Journal*, 57-66.
- Winkler, B. (1999). Is Maastricht a Good Contract? *Journal of Common Market Studies*, 39-58.